EXHIBIT F

Cisco Summary Exhibit
Output Copying

Cisco

Command Examples This example shows the output from the **show port-security** command when you do not enter any options:

```
Router# show port-security
Secure Port      MaxSecureAddr  CurrentAddr  SecurityViolation  Security
Action
                   (Count)        (Count)       (Count)
------------------------------------------------------------------------

    Fa5/1           11             11            0            Shutdown
    Fa5/5           15             5             0            Restrict
    Fa5/11          5              4             0            Protect
------------------------------------------------------------------------

Total Addresses in System: 21
Max Addresses limit in System: 128
Router#
```

Cisco IOS Security Command Reference Commands S to Z, IOS 15.2, at 692

Arista

```
switch(config)#clear mac address-table dynamic interface ethernet 7
switch(config)#show port-security
Secure Port       MaxSecureAddr  CurrentAddr  SecurityViolation  Security Action
                     (Count)       (Count)        (Count)
----------------------------------------------------------------------------
     Et7                2             2              0              Shutdown
----------------------------------------------------------------------------
```

Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 632.

See also Arista User Manual v. 4.13.6F (4/14/2014), at 624; Arista User Manual v. 4.12.3 (7/17/13), at 501; Arista User Manual, v. 4.11.1 (1/11/13), at 405-06; Arista User Manual v. 4.10.3 (10/22/12), at 336.

Cisco

```
Router# show interface cbr 6/0
CBR6/0 is up, line protocol is up
  Hardware is DCU
  MTU 0 bytes, BW 1544 Kbit, DLY 0 usec, rely 255/255, load 248/255
  Encapsulation ET_ATMCES_T1, loopback not set
  Last input 00:00:00, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Queueing strategy: fifo
  Output queue 0/0, 0 drops; input queue 0/75, 0 drops
  5 minute input rate 1507000 bits/sec, 3957 packets/sec
  5 minute output rate 1507000 bits/sec, 3955 packets/sec
     3025960 packets input, 142220120 bytes, 0 no buffer
     Received 0 broadcasts, 0 runts, 0 giants
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
     3030067 packets output, 142413149 bytes, 0 underruns
     0 output errors, 0 collisions, 0 interface resets
     0 output buffer failures, 0 output buffers swapped out
```

The table below describes the fields shown in the display.

Cisco IOS Asynchronous Transfer Mode Command Reference (2013), at 460

Arista

```
switch#show interfaces ethernet 1
Ethernet1 is up, line protocol is up (connected)
  Hardware is Ethernet, address is 001c.7302.2fff (bia 001c.7302.2fff)
  MTU 9212 bytes, BW 10000000 Kbit
  Full-duplex, 10Gb/s, auto negotiation: off
  Last clearing of "show interface" counters never
  5 minutes input rate 301 bps (0.0% with framing), 0 packets/sec
  5 minutes output rate 0 bps (0.0% with framing), 0 packets/sec
     2285370854005 packets input, 225028582832583 bytes
     Received 29769609741 broadcasts, 3073437605 multicast
     113 runts, 1 giants
     118 input errors, 117 CRC, 0 alignment, 18 symbol
     27511409 PAUSE input
     335031607678 packets output, 27845413138330 bytes
     Sent 14282316688 broadcasts, 54045824072 multicast
     108 output errors, 0 collisions
     0 late collision, 0 deferred
     0 PAUSE output
```

Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 413.
Arista User Manual v. 4.11.2.1 (3/1/2013), at 447.
Arista User Manual v. 4.12.4 (9/16/2013), at 533.
Arista User Manual v. 4.13.6F (4/14/2014), at 637.
Arista User Manual v. 4.13.7M (6/17/2014), at 638.
Arista User Manual v. 4.14.3F - Rev. 2 (10/2/14), at 646
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 648.

Cisco	Arista
	Arista User Manual v. 4.14.6M (1/19/2015), at 644. Arista User Manual v. 4.15.0F (4/18/2015), at 652. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 644.
Router# **show interfaces** Ethernet0/0 is up, line protocol is up Hardware is AmdP2, address is aabb.cc03.6c00 (bia aabb.cc03.6c00) Internet address is 172.17.1.1/16 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec, reliability 255/255, txload 1/255, rxload 1/255 Encapsulation ARPA, loopback not set Keepalive set (10 sec) ARP type: ARPA, ARP Timeout 04:00:00 Last input never, output 00:00:06, output hang never Last clearing of "show interface" counters never Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue: 0/40 (size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0 packets/sec 0 packets input, 0 bytes, 0 no buffer Received 0 broadcasts, 0 runts, 0 giants, 0 throttles 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored 0 input packets with dribble condition detected 11 packets output, 1648 bytes, 0 underruns 0 output errors, 0 collisions, 1 interface resets 0 babbles, 0 late collision, 0 deferred 0 lost carrier, 0 no carrier 0 output buffer failures, 0 output buffers swapped out Cisco Configuration Fundamentals Configuration Guide, Cisco IOS Release 15M&T (2013), at 44	switch#**show interfaces ethernet 1** Ethernet1 is up, line protocol is up (connected) Hardware is Ethernet, address is 001c.7302.2fff (bia 001c.7302.2fff) MTU 9212 bytes, BW 10000000 Kbit Full-duplex, 10Gb/s, auto negotiation: off Last clearing of "show interface" counters never 5 minutes input rate 301 bps (0.0% with framing), 0 packets/sec 5 minutes output rate 0 bps (0.0% with framing), 0 packets/sec 2285370854005 packets input, 225028582832583 bytes Received 29769609741 broadcasts, 3073437605 multicast 113 runts, 1 giants 118 input errors, 117 CRC, 0 alignment, 18 symbol 27511409 PAUSE input 335031607678 packets output, 27845413138330 bytes Sent 14282316688 broadcasts, 54045824072 multicast 108 output errors, 0 collisions 0 late collision, 0 deferred 0 PAUSE output Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 413. Arista User Manual v. 4.11.2.1 (3/1/2013), at 447. Arista User Manual v. 4.12.4 (9/16/2013), at 533. Arista User Manual v. 4.13.6F (4/14/2014), at 637. Arista User Manual v. 4.13.7M (6/17/2014), at 638. Arista User Manual v. 4.14.3F - Rev. 2 (10/2/14), at 646. Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 648. Arista User Manual v. 4.14.6M (1/19/2015), at 644. Arista User Manual v. 4.15.0F (4/18/2015), at 652. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 644.
Use the **showinterface***interface-type interface-number* command to display the information and statistics for Ethernet 0 on R4. R4> **show interface ethernet 0** Ethernet0 is up, line protocol is up Hardware is Lance, address is 00e0.1eb8.eb0e (bia 00e0.1eb8.eb0e) The MAC address for Ethernet 0 on R4 is 00e0.1eb8.eb0e. The format of the client identifier for this interface is nullcisco-00e0.1eb8.eb0e-et0.	This command assigns the MAC address of 001c.2804.17e1 to Ethernet interface 7, then displays interface parameters, including the assigned address. switch(config)#**interface ethernet 7** switch(config-if-Et7)#**mac-address 001c.2804.17e1** switch(config-if-Et7)#**show interface ethernet 7** Ethernet3 is up, line protocol is up (connected) Hardware is Ethernet, address is 001c.2804.17e1 (bia 001c.7312.02e2)

Cisco	Arista
Configuration Fundamentals Configuration Guide, Cisco IOS Release 15M&T (2013), at 81	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/14), at 437. See also Arista User Manual v. 4.12.3 (7/17/13), at 371; Arista User Manual, v. 4.11.1 (1/11/13), at 312; Arista User Manual v. 4.10.3 (10/22/12), at 270; Arista User Manual v. 4.9.3.2 (5/3/12), at 252.

The following is sample output from the **show ip igmp snooping** command:
 	
`Router# show ip igmp snooping`
 	
`Global IGMP Snooping configuration:`
`-----------------------------------`
`IGMP snooping : Enabled`
`IGMPv3 snooping (minimal) : Enabled`
`Report suppression : Enabled`
`TCN solicit query : Disabled`
`TCN flood query count : 2`
`Last Member Query Interval : 1000`
 	
Cisco IOS IP Multicast Command Reference (2013), at 626
	Example
	• This command displays the switch's IGMP snooping configuration.
	`switch>show ip igmp snooping`
	`Global IGMP Snooping configuration:`
	`-------------------------------------------`
	`IGMP snooping : Enabled`
	`Robustness variable : 2`
	
	Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 1263.
	Arista User Manual v. 4.11.2.1 (3/1/2013), at 1339.
	Arista User Manual v. 4.12.4 (9/16/2013), at 1559.
	Arista User Manual v. 4.13.6F (4/14/2014), at 1733.
	Arista User Manual v. 4.13.7M (6/17/2014), at 1810.
	Arista User Manual v. 4.14.3F - Rev. 2 (10/2/14), at 1785.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1799.
	Arista User Manual v. 4.14.6M (1/19/2015), at 1794.
	Arista User Manual v. 4.15.0F (4/18/2015), at 1803.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1797.

Examples This example shows how to display transceiver information:
 	
`Router# show interfaces transceiver`
`If device is externally calibrated, only calibrated values are printed.`
`++ : high alarm, + : high warning, - : low warning, -- : low alarm.`
`NA or N/A: not applicable, Tx: transmit, Rx: receive.`
`mA: milliamperes, dBm: decibels (milliwatts).`
`                                          Optical   Optical`
`        Temperature  Voltage  Current    Tx Power  Rx Power`
`Port    (Celsius)    (Volts)  (mA)       (dBm)     (dBm)`
`------- -----------  -------  --------   --------  --------`
`Gi1/1     40.6       5.09       0.4      -25.2      N/A`
`Gi2/1     35.5       5.05       0.1      -29.2      N/A`
`Gi2/2     49.5       3.30       0.0        7.1     -18.7`
 	
Cisco IOS Interfaces and Hardware Component Command Reference (2013), at 1879
	Examples
	• This command displays transceiver data on Ethernet interfaces 1 through 4.
	`switch>show interfaces ethernet 1-4 transceiver`
	`If device is externally calibrated, only calibrated values are printed.`
	`N/A: not applicable, Tx: transmit, Rx: receive.`
	`mA: milliamperes, dBm: decibels (milliwatts).`
	`                            Bias      Optical   Optical`
	`       Temp       Voltage   Current   Tx Power  Rx Power  Last Update`
	`Port   (Celsius)  (Volts)   (mA)      (dBm)     (dBm)     (Date Time)`
	`-----  ---------  --------  --------  --------  --------  -------------------`
	`Et1    34.17      3.30      6.75      -2.41     -2.83     2011-12-02 16:18:48`
	`Et2    35.08      3.30      6.75      -2.23     -2.06     2011-12-02 16:18:42`
	`Et3    36.72      3.30      7.20      -2.02     -2.14     2011-12-02 16:18:49`
	`Et4    35.91      3.30      6.92      -2.20     -2.23     2011-12-02 16:18:45`
	`switch>`
	.

Cisco	Arista
	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/14), at 451. *See also* Arista User Manual v. 4.12.3 (7/17/13), at 385; Arista User Manual, v. 4.11.1 (1/11/13), at 326; Arista User Manual v. 4.10.3 (10/22/12), at 284; Arista User Manual v. 4.9.3.2 (5/3/12), at 266.
The following is sample output from the **showipospf** command when entered without a specific OSPF process ID: Router# **show ip ospf** Routing Process "ospf 201" with ID 10.0.0.1 and Domain ID 10.20.0.1 Supports only single TOS(TOS0) routes Supports opaque LSA SPF schedule delay 5 secs, Hold time between two SPFs 10 secs Minimum LSA interval 5 secs. Minimum LSA arrival 1 secs LSA group pacing timer 100 secs Interface flood pacing timer 55 msecs Retransmission pacing timer 100 msecs Number of external LSA 0. Checksum Sum 0x0 Number of opaque AS LSA 0. Checksum Sum 0x0 Number of DCbitless external and opaque AS LSA 0 Number of DoNotAge external and opaque AS LSA 0 Number of areas in this router is 2. 2 normal 0 stub 0 nssa External flood list length 0 Area BACKBONE(0) Number of interfaces in this area is 2 Area has message digest authentication SPF algorithm executed 4 times Area ranges are Number of LSA 4. Checksum Sum 0x29BEB Number of opaque link LSA 0. Checksum Sum 0x0 Number of DCbitless LSA 3 Number of indication LSA 0 Number of DoNotAge LSA 0 Flood list length 0 Area 172.16.26.0 Number of interfaces in this area is 0 Area has no authentication SPF algorithm executed 1 times Area ranges are 192.168.0.0/16 Passive Advertise Number of LSA 1. Checksum Sum 0x44FD Number of opaque link LSA 0. Checksum Sum 0x0 Number of DCbitless LSA 1 Number of indication LSA 1 Number of DoNotAge LSA 0 Flood list length 0 Cisco IOS IP Routing:OSPF Command Reference (2013), at 174	switch#**show ip ospf** Routing Process "ospf 1" with ID 10.168.103.1 Supports opaque LSA Maximum number of LSA allowed 12000 Threshold for warning message 75% Ignore-time 5 minutes, reset-time 5 minutes Ignore-count allowed 5, current 0 It is an area border router Hold time between two consecutive SPFs 5000 msecs SPF algorithm last executed 00:00:09 ago Minimum LSA interval 5 secs Minimum LSA arrival 1000 msecs Number of external LSA 0. Checksum Sum 0x000000 Number of opaque AS LSA 0. Checksum Sum 0x000000 Number of LSA 27. Number of areas in this router is 3. 3 normal 0 stub 0 nssa Area BACKBONE(0.0.0.0) Number of interfaces in this area is 2 It is a normal area Area has no authentication SPF algorithm executed 153 times Number of LSA 8. Checksum Sum 0x03e13a Number of opaque link LSA 0. Checksum Sum 0x000000 Area 0.0.0.2 Number of interfaces in this area is 1 It is a normal area Area has no authentication SPF algorithm executed 153 times Number of LSA 11. Checksum Sum 0x054e57 Number of opaque link LSA 0. Checksum Sum 0x000000 Area 0.0.0.3 Number of interfaces in this area is 1 It is a normal area Area has no authentication SPF algorithm executed 5 times Number of LSA 6. Checksum Sum 0x02a401 Number of opaque link LSA 0. Checksum Sum 0x000000 Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 947. Arista User Manual v. 4.11.2.1 (3/1/2013), at 991. Arista User Manual v. 4.12.4 (9/16/2013), at 1226. Arista User Manual v. 4.13.6F (4/14/2014), at 1341-1342.

<table>
<tr><th>Cisco</th><th>Arista</th></tr>
<tr><td></td><td>Arista User Manual v. 4.13.7M (6/17/2014), at 1359-1360.
Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 1391-1392.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1413.
Arista User Manual v. 4.14.6M (1/19/2015), at 1409.
Arista User Manual v. 4.15.0F (4/18/2015), at 1417.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1411.</td></tr>
<tr><td>Examples The following is sample output from the show snmp command:

Router# show snmp
Chassis: 12161083
0 SNMP packets input
  0 Bad SNMP version errors
  0 Unknown community name
  0 Illegal operation for community name supplied
  0 Encoding errors
  0 Number of requested variables
  0 Number of altered variables
  0 Get-request PDUs
  0 Get-next PDUs
  0 Set-request PDUs
  0 Input queue packet drops (Maximum queue size 1000)
0 SNMP packets output
  0 Too big errors (Maximum packet size 1500)
  0 No such name errors
  0 Bad values errors
  0 General errors
  0 Response PDUs
  0 Trap PDUs
SNMP logging: enabled
  SNMP Trap Queue: 0 dropped due to resource failure.

Cisco IOS SNMP Support Command Reference (2013), at 83</td><td>Example
• This command configures xyz-1234 as the chassis-ID string, then displays the result.
switch(config)#snmp-server chassis-id xyz-1234
switch(config)#show snmp
  Chassis: xyz-1234   <---chassis ID

8 SNMP packets input
  0 Bad SNMP version errors
  0 Unknown community name
  0 Illegal operation for community name supplied
  0 Encoding errors
  8 Number of requested variables
  0 Number of altered variables
  4 Get-request PDUs
  4 Get-next PDUs
  0 Set-request PDUs
21 SNMP packets output
  0 Too big errors
  0 No such name errors
  0 Bad value errors
  0 General errors
  8 Response PDUs
  0 Trap PDUs
SNMP logging: enabled
  Logging to taccon.162
SNMP agent enabled
switch(config)#
Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 1352-1353.
Arista User Manual v. 4.11.2.1 (3/1/2013), at 1432-1433.
Arista User Manual v. 4.12.4 (9/16/2013), at 1705-1706.
Arista User Manual v. 4.13.6F (4/14/2014), at 1895-1896.
Arista User Manual v. 4.13.7M (6/17/2014), at 1923-1924.
Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 1967-68.</td></tr>
</table>

Cisco	Arista
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1981-82. Arista User Manual v. 4.14.6M (1/19/2015), at 1977-1978. Arista User Manual v. 4.15.0F (4/18/2015), at 1985-1986. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1979-1980
Router# **show interfaces atm 0/0/0** ATM0/0/0 is up, line protocol is up Hardware is cyBus ATM Internet address is 10.1.1.1/24 MTU 4470 bytes, sub MTU 4470, BW 156250 Kbit, DLY 80 usec, rely 255/255, load 1/255 Encapsulation ATM, loopback not set, keepalive set (10 sec) Encapsulation(s): AAL5, PVC mode 256 TX buffers, 256 RX buffers, 2048 maximum active VCs, 1024 VCs per VP, 1 current VCCs VC idle disconnect time: 300 seconds Last input never, output 00:00:05, output hang never Last clearing of "show interface" counters never Queueing strategy: fifo Output queue 0/40, 0 drops; input queue 0/75, 0 drops 5 minute input rate 0 bits/sec, 1 packets/sec 5 minute output rate 0 bits/sec, 1 packets/sec 5 packets input, 560 bytes, 0 no buffer Received 0 broadcasts, 0 runts, 0 giants 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort 5 packets output, 560 bytes, 0 underruns 0 output errors, 0 collisions, 0 interface resets 0 output buffer failures, 0 output buffers swapped out Cisco IOS Asynchronous Transfer Mode Command Reference (2011), at ATM-377	**Examples** • These commands display interface counters, clear the counters, then display the counters again. switch#**show interfaces ethernet 1** Ethernet1 is up, line protocol is up (connected) Hardware is Ethernet, address is 001c.7302.2fff (bia 001c.7302.2fff) MTU 9212 bytes, BW 10000000 Kbit Full-duplex, 10Gb/s, auto negotiation: off Last clearing of "show interface" counters never 5 minutes input rate 301 bps (0.0% with framing), 0 packets/sec 5 minutes output rate 0 bps (0.0% with framing), 0 packets/sec 2285370854005 packets input, 225028582832583 bytes Received 29769609741 broadcasts, 3073437605 multicast 113 runts, 1 giants 118 input errors, 117 CRC, 0 alignment, 18 symbol 27511409 PAUSE input 335031607678 packets output, 27845413138330 bytes Sent 14282316688 broadcasts, 54045824072 multicast 108 output errors, 0 collisions 0 late collision, 0 deferred 0 PAUSE output Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 413. Arista User Manual v. 4.11.2.1 (3/1/2013), at 447. Arista User Manual v. 4.12.4 (9/16/2013), at 533. Arista User Manual v. 4.13.6F (4/14/2014), at 637. Arista User Manual v. 4.13.7M (6/17/2014), at 638. Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 646. Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 648. Arista User Manual v. 4.14.6M (1/19/2015), at 644. Arista User Manual v. 4.15.0F (4/18/2015), at 652. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 644.

Cisco

```
Router# show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set
```

Cisco IOS IP Routing Protocols Command Reference, Release 12.4 (2005), at IP2R-553

Arista

IPv4 Routing Chapter 23 IPv4

Examples

- This command displays IP routes learned through BGP.

```
switch>show ip route bgp
Codes: C - connected, S - static, K - kernel,
       O - OSPF, IA - OSPF inter area, E1 - OSPF external type 1,
       E2 - OSPF external type 2, N1 - OSPF NSSA external type 1,
       N2 - OSPF NSSA external type2, B I - iBGP, B E - eBGP,
       R - RIP, A - Aggregate

 B E    170.44.48.0/23 [20/0] via 170.44.254.78
 B E    170.44.50.0/23 [20/0] via 170.44.254.78
 B E    170.44.52.0/23 [20/0] via 170.44.254.78
 B E    170.44.54.0/23 [20/0] via 170.44.254.78
 B E    170.44.254.112/30 [20/0] via 170.44.254.78
 B E    170.53.0.34/32 [1/0] via 170.44.254.78
 B I    170.53.0.35/32 [1/0] via 170.44.254.2
                             via 170.44.254.13
                             via 170.44.254.20
                             via 170.44.254.67
                             via 170.44.254.35
                             via 170.44.254.98

switch>
```

Arista User Manual v. 4.10.0 (7/19/2012), at 617.
Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 840.
Arista User Manual v. 4.11.2.1 (3/1/2013), at 880.
Arista User Manual v. 4.12.4 (9/16/2013), at 1085.
Arista User Manual v. 4.13.6F (4/14/2014), at 1188.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 1228.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1250.
Arista User Manual v. 4.14.6M (1/19/2015), at 1246.
Arista User Manual v. 4.15.0F (4/18/2015), at 1254.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1248.
Arista User Manual v. 4.13.7M (6/17/2014), at 1206.

Cisco

Usage Guidelines This command provides counter information for SNMP operations. It also displays the chassis ID string defined with the **snmp-server chassis-id** global configuration command.

Command Examples The following is sample output from the **show snmp** command:

```
Router# show snmp
Chassis: 12161083
0 SNMP packets input
    0 Bad SNMP version errors
    0 Unknown community name
    0 Illegal operation for community name supplied
    0 Encoding errors
    0 Number of requested variables
    0 Number of altered variables
    0 Get-request PDUs
    0 Get-next PDUs
    0 Set-request PDUs
    0 Input queue packet drops (Maximum queue size 1000)
0 SNMP packets output
    0 Too big errors (Maximum packet size 1500)
    0 No such name errors
    0 Bad values errors
    0 General errors
    0 Response PDUs
    0 Trap PDUs
SNMP logging: enabled
```

Cisco IOS SNMP Support Command Reference, IOS 15.2 (2011), at 95-96

Arista

Configuring SNMP Chapter 37 SNMP

```
8 SNMP packets input
    0 Bad SNMP version errors
    0 Unknown community name
    0 Illegal operation for community name supplied
    0 Encoding errors
    8 Number of requested variables
    0 Number of altered variables
    4 Get-request PDUs
    4 Get-next PDUs
    0 Set-request PDUs
21 SNMP packets output
    0 Too big errors
    0 No such name errors
    0 Bad value errors
    0 General errors
    8 Response PDUs
    0 Trap PDUs
SNMP logging: enabled
    Logging to taccon.162
SNMP agent enabled
switch(config)#
```

Arista User Manual v. 4.10.0 (7/19/2012), at 1043.
Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 1353.
Arista User Manual v. 4.11.2.1 (3/1/2013), at 1433.
Arista User Manual v. 4.12.4 (9/16/2013), at 1706.
Arista User Manual v. 4.13.6F (4/14/2014), at 1896.
Arista User Manual v. 4.13.7M (6/17/2014), at 1924.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 1968.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1982.
Arista User Manual v. 4.14.6M (1/19/2015), at 1978.
Arista User Manual v. 4.15.0F (4/18/2015), at 1986.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1980.

Cisco	Arista

Examples This example shows how to display VTP interface switchport information on the device:
`switch# show interface switchport`
`Name: Ethernet8/11`
`Switchport: Enabled`
`Switchport Monitor: Not enabled`
`Operational Mode: trunk`
`Access Mode VLAN: 1 (default)`
`Trunking Native Mode VLAN: 1 (default)`
`Trunking VLANs Enabled: 1,10,20-30`
`Pruning VLANs Enabled: 2-1001`
`Administrative private-vlan primary host-association: none`
`Administrative private-vlan secondary host-association: none`
`Administrative private-vlan primary mapping: none`
`Administrative private-vlan secondary mapping: none`
`Administrative private-vlan trunk native VLAN: none`
`Administrative private-vlan trunk encapsulation: dot1q`
`Administrative private-vlan trunk normal VLANs: none`
`Administrative private-vlan trunk private VLANs: none`
`Operational private-vlan: none`
`switch#`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 44
	Example
	• These commands create the trunk mode allowed VLAN list of 6-10 for Ethernet interface 14, then verifies the VLAN list.
	`switch(config)#interface ethernet 14`
	`switch(config-if-Et14)#switchport trunk allowed vlan 6-10`
	`switch(config-if-Et14)#show interfaces ethernet 14 switchport`
	`Name: Et14`
	`Switchport: Enabled`
	`Administrative Mode: trunk`
	`Operational Mode: trunk`
	`Access Mode VLAN: 1 (inactive)`
	`Trunking Native Mode VLAN: 1 (inactive)`
	`Administrative Native VLAN tagging: disabled`
	`Trunking VLANs Enabled: 6-10`
	`Trunk Groups:`
	
	`switch(config-if-Et14)#`
	
	Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 798.
	
	See also Arista User Manual v. 4.12.3 (7/17/13), at 645; Arista User Manual, v. 4.11.1 (1/11/13), at 498; Arista User Manual v. 4.10.3 (10/22/12), at 416; Arista User Manual v. 4.9.3.2 (5/3/12), at 355.

Examples This example shows how to display information about the specified VLAN. This command displays statistical information gathered on the VLAN at 1-minute intervals:
`switch# show interface vlan 5`
`Vlan5 is administratively down, line protocol is down`
`Hardware is EtherSVI, address is 0000.0000.0000`
`MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,`
`reliability 255/255, txload 1/255, rxload 1/255`
`Encapsulation ARPA, loopback not set`
`Keepalive not supported`
`ARP type: ARPA`
`Last clearing of "show interface" counters 01:21:55`
`1 minute input rate 0 bytes/sec, 0 packets/sec`
`1 minute output rate 0 bytes/sec, 0 packets/sec`
`L3 Switched:`
`input: 0 pkts, 0 bytes - output: 0 pkts, 0 bytes`
`L3 in Switched:`
`ucast: 0 pkts, 0 bytes - mcast: 0 pkts, 0 bytes`
`L3 out Switched:`
`ucast: 0 pkts, 0 bytes - mcast: 0 pkts, 0 bytes`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 49
	Example
	• This command display configuration and status information for Ethernet interface 1 and 2.
	`switch>show interfaces ethernet 1-2`
	`Ethernet1 is up, line protocol is up (connected)`
	`Hardware is Ethernet, address is 001c.2481.7647 (bia 001c.2481.7647)`
	`Description: mkt:1`
	`MTU 9212 bytes, BW 10000000 Kbit`
	`Full-duplex, 10Gb/s, auto negotiation: off`
	`Last clearing of "show interface" counters never`
	`5 seconds input rate 33.5 Mbps (0.3% with framing), 846 packets/sec`
	`5 seconds output rate 180 kbps (0.0% with framing), 55 packets/sec`
	`76437268 packets input, 94280286608 bytes`
	`Received 2208 broadcasts, 73358 multicast`
	`0 runts, 0 giants`
	`0 input errors, 0 CRC, 0 alignment, 0 symbol`
	`0 PAUSE input`
	`6184281 packets output, 4071319140 bytes`
	`Sent 2209 broadcasts, 345754 multicast`
	`0 output errors, 0 collisions`
	`0 late collision, 0 deferred`
	`0 PAUSE output`
	
	Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 437.

Cisco	Arista
	See also Arista User Manual v. 4.12.3 (7/17/13), at 371; Arista User Manual, v. 4.11.1 (1/11/13), at 312; Arista User Manual v. 4.10.3 (10/22/12), at 270; Arista User Manual v. 4.9.3.2 (5/3/12), at 252.

Examples This example shows how to display STP when you are running Rapid PVST+:
`switch# show spanning-tree`
`VLAN0001`
`Spanning tree enabled protocol rstp`
`Root ID Priority 32769`
`Address 000d.eca3.9f01`
`Cost 4`
`Port 4105 (port-channel10)`
`Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec`
`Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)`
`Address 0022.5579.7641`
`Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec`
`Interface Role Sts Cost Prio.Nbr Type`
`------`
`Po10 Root FWD 2 128.4105 (vPC peer-link) P2p`
`Po20 Desg FWD 1 128.4115 (vPC) P2p`
`Po30 Root FWD 1 128.4125 (vPC) P2p`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 63
	Show commands (such as show spanning-tree) displays the RSTP instance as MST0 (MST instance 0).
	
	Example
	• This command, while the switch is in RST mode, displays RST instance information.
	`switch(config)#show spanning-tree`
	`MST0`
	`Spanning tree enabled protocol rstp` *<---RSTP mode indicator*
	`Root ID Priority 32768`
	`Address 001c.730c.1867`
	`This bridge is the root`
	`Bridge ID Priority 32768 (priority 32768 sys-id-ext 0)`
	`Address 001c.730c.1867`
	`Hello Time 2.000 sec Max Age 20 sec Forward Delay 15 sec`
	`Interface Role State Cost Prio.Nbr Type`
	`---------------- ---------- ---------- --------- -------- --------------------`
	`Et51 designated forwarding 2000 128.51 P2p`
	`switch(config)#`
	
	Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 960.
	
	See also Arista User Manual v. 4.12.3 (7/17/13), at 838; Arista User Manual, v. 4.11.1 (1/11/13), at 656; Arista User Manual v. 4.10.3 (10/22/12), at 570; Arista User Manual v. 4.9.3.2 (5/3/12), at 490; Arista User Manual v. 4.8.2 (11/18/11), at 364; Arista User Manual v. 4.7.3 (7/18/11), at 238; Arista User Manual v. 4.6.0 (12/22/2010), at 268.

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(see below)	(see below)

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This example shows how to display STP information when you are running MST:

```
switch# show spanning-tree

MST0000
  Spanning tree enabled protocol mstp
  Root ID    Priority    32768
             Address     0018.bad8.fc150
             Cost        0
             Port         258 (Ethernet 2/2)
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32768 (priority 32768 sys-id-ext 0)
             Address     0018.bad8.239d
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

Interface        Role Sts Cost      Prio.Nbr  Type
---------------- ----- --- --------- --------  -----------------------------------
Eth2/1           Altn  BKN 20000     128.257   Network, P2p   BA_Inc.
Eth2/2           Root  FWD 20000     128.258   Edge, P2p
Eth3/48          Desg  FWD 20000     128.43228 P2p
```

Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 64

Arista

```
This command displays output from the show spanning-tree command:
Switch#show spanning-tree
MST0
  Spanning tree enabled protocol mstp
  Root ID     Priority    32768
              Address     0011.2201.0301
              This bridge is the root

  Bridge ID   Priority    32768  (priority 32768 sys-id-ext 0)
              Address     0011.2201.0301
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

Interface        Role       State      Cost      Prio.Nbr Type
---------------- ---------- ---------- --------- -------- --------------------
Et4              designated forwarding 2000      128.4    P2p
Et5              designated forwarding 2000      128.5    P2p
...
PEt4             designated forwarding 2000      128.31   P2p
PEt5             designated forwarding 2000      128.44   P2p
...
Po3              designated forwarding 1999      128.1003 P2p
```

Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 983.

See also Arista User Manual v. 4.12.3 (7/17/13), at 861; Arista User Manual, v. 4.11.1 (1/11/13), at 679; Arista User Manual v. 4.10.3 (10/22/12), at 593; Arista User Manual v. 4.9.3.2 (5/3/12), at 512; Arista User Manual v. 4.8.2 (11/18/11), at 386; Arista User Manual v. 4.7.3 (7/18/11), at 275; Arista User Manual v. 4.6.0 (12/22/2010), at 295

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Spanning tree enabled protocol rstp
Root ID   Priority   32770
           Address   000d.eca3.9f01
           Cost   4
           Port   4105 (port-channel10)
           Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 	
Bridge ID Priority   32770 (priority 32768 sys-id-ext 2)
           Address   0022.5579.7641
           Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 	
Interface   Role Sts Cost   Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Po10   Root FWD 2   128.4105 (vPC peer-link) P2p
Po20   Desg FWD 1   128.4115 (vPC) P2p
Po30   Root FWD 1   128.4125 (vPC) P2p
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 73
	Spanning tree enabled protocol rstp
	Root ID Priority 32768
	           Address 001c.7301.07b9
	           Cost 1999 (Ext) 0 (Int)
	           Port 101 (Port-Channel2)
	           Hello Time 2.000 sec Max Age 20 sec Forward Delay 15 sec
	
	Bridge ID Priority 32768 (priority 32768 sys-id-ext 0)
	           Address 001c.7304.195b
	           Hello Time 2.000 sec Max Age 20 sec Forward Delay 15 sec
	
	Interface Role State Cost Prio.Nbr Type
	---------------- ---------- ---------- --------- -------- --------------------
	Et4 designated forwarding 20000 128.4 P2p
	Et5 designated forwarding 20000 128.5 P2p
	Et6 designated forwarding 20000 128.6 P2p
	Et23 designated forwarding 20000 128.23 P2p
	Et26 designated forwarding 20000 128.26 P2p
	Et32 designated forwarding 2000 128.32 P2p
	
	Arista User Manual v. 4.12.4 (9/16/2013), at 883.
	Arista User Manual v. 4.13.6F (4/14/2014), at 947.
	Arista User Manual v. 4.13.7M (6/17/2014), at 965.
	Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 983.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 985.
	Arista User Manual v. 4.14.6M (1/19/2015), at 981.
	Arista User Manual v. 4.15.0F (4/18/2015), at 989.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 981.

Cisco	Arista

This example shows how to display detailed information about the STP configuration:
`switch(config)# show spanning-tree detail`
`VLAN0001 is executing the rstp compatible Spanning Tree protocol`
`Bridge Identifier has priority 32768, sysid 1, address 0022.5579.7641`
`Configured hello time 2, max age 20, forward delay 15`
`Current root has priority 32769, address 000d.eca3.9f01`
`Root port is 4105 (port-channel10), cost of root path is 4`
`Topology change flag not set, detected flag not set`
`Number of topology changes 1 last change occurred 20:24:36 ago`
`from port-channel10`
`Times: hold 1, topology change 35, notification 2`
`hello 2, max age 20, forward delay 15`
`Timers: hello 0, topology change 0, notification 0`
 	
`Port 4105 (port-channel10, vPC Peer-link) of VLAN0001 is root forwarding`
`Port path cost 2, Port priority 128, Port Identifier 128.4105`
`Designated root has priority 32769, address 000d.eca3.9f01`
`Designated bridge has priority 32769, address 0022.5579.7341`
`Designated port id is 128.4105, designated path cost 2`
`Timers: message age 16, forward delay 0, hold 0`
`Number of transitions to forwarding state: 1`
`Link type is point-to-point by default`
`BPDU: sent 36729, received 36739`
 	
`Port 4115 (port-channel20, vPC) of VLAN0001 is designated forwarding`
`Port path cost 1, Port priority 128, Port Identifier 128.4115`
`Designated root has priority 32769, address 000d.eca3.9f01`
`Designated bridge has priority 32769, address 0022.5579.7341`
`Designated port id is 128.4115, designated path cost 2`
`Timers: message age 0, forward delay 0, hold 0`
`Number of transitions to forwarding state: 0`
`Link type is point-to-point by default`
`BPDU: sent 0, received 0`
 	
`Port 4125 (port-channel30, vPC) of VLAN0001 is root forwarding`
`Port path cost 1, Port priority 128, Port Identifier 128.4125`
`Designated root has priority 32769, address 000d.eca3.9f01`
`Designated bridge has priority 32769, address 000d.eca3.9f01`
`Designated port id is 128.4125, designated path cost 0`
`Timers: message age 0, forward delay 0, hold 0`
`Number of transitions to forwarding state: 0`
`Link type is point-to-point by default`
`BPDU: sent 0, received 0`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command
	• This command displays STP data, including an information block for each interface running STP.
	`switch>show spanning-tree vlan 1000 detail`
	`MST0 is executing the rstp Spanning Tree protocol`
	`Bridge Identifier has priority 32768, sysid 0, address 001c.7304.195b`
	`Configured hello time 2.000, max age 20, forward delay 15, transmit hold-count 6`
	`Current root has priority 32768, address 001c.7301.07b9`
	`Root port is 101 (Port-Channel12), cost of root path is 1999 (Ext) 0 (Int)`
	`Number of topology changes 4109 last change occurred 1292651 seconds ago`
	`from Ethernet13`
	
	`Port 4 (Ethernet4) of MST0 is designated forwarding`
	`Port path cost 20000, Port priority 128, Port Identifier 128.4.`
	`Designated root has priority 32768, address 001c.7301.07b9`
	`Designated bridge has priority 32768, address 001c.7304.195b`
	`Designated port id is 128.4, designated path cost 1999 (Ext) 0 (Int)`
	`Timers: message age 1, forward delay 15, hold 20`
	`Number of transitions to forwarding state: 1`
	`Link type is point-to-point by default, Internal`
	`BPDU: sent 452252, received 0, taggedErr 0, otherErr 0, rateLimiterCount 0`
	`Rate-Limiter: enabled, Window: 10 sec, Max-BPDU: 400`
	
	`Port 5 (Ethernet5) of MST0 is designated forwarding`
	`Port path cost 20000, Port priority 128, Port Identifier 128.5.`
	`Designated root has priority 32768, address 001c.7301.07b9`
	`Designated bridge has priority 32768, address 001c.7304.195b`
	`Designated port id is 128.5, designated path cost 1999 (Ext) 0 (Int)`
	`Timers: message age 1, forward delay 15, hold 20`
	`Number of transitions to forwarding state: 1`
	`Link type is point-to-point by default, Internal`
	`BPDU: sent 1006266, received 0, taggedErr 0, otherErr 0, rateLimiterCount 0`
	`Rate-Limiter: enabled, Window: 10 sec, Max-BPDU: 400`
	
	Arista User Manual v. 4.12.4 (9/16/2013), at 884.
	Arista User Manual v. 4.13.6F (4/14/2014), at 948.
	Arista User Manual v. 4.13.7M (6/17/2014), at 966.
	Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 984.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 986.
	Arista User Manual v. 4.14.6M (1/19/2015), at 982.
	Arista User Manual v. 4.15.0F (4/18/2015), at 990.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 982.

Cisco	Arista
Reference (Feb. 2013), at 74-75	

This example shows how to display STP information about a specified interface when you are running Rapid PVST+:
`switch(config)# show spanning-tree interface ethernet 8/2`
`Vlan Role Sts Cost Prio.Nbr Type`
`---------------- ---- --- --------- -------- ------------------------------`
`VLAN0001 Altn BLK 20000 128.1025 P2p`
`VLAN0002 Desg FWD 20000 128.1025 P2p`
This example shows how to display STP information about a specified interface when you are running MST:
`switch(config)# show spanning-tree interface ethernet 2/50`
`Mst Instance Role Sts Cost Prio.Nbr Type`
`---------------- ---- --- --------- -------- ------------------------------`
`MST0000 Desg FWD 20000 128.1281 P2p`
This example shows how to display detailed STP information about a specified interface when you are running Rapid PVST+:
`switch(config)# show spanning-tree interface ethernet 8/1 detail`
`Port 1025 (Ethernet8/1) of VLAN0001 is alternate blocking`
`Port path cost 20000, Port priority 128, Port Identifier 128.1025`
`Designated root has priority 28672, address 0018.bad8.239d`
`Designated bridge has priority 28672, address 0018.bad8.239d`
`Designated port id is 128.1281, designated path cost 0`
`Timers: message age 15, forward delay 0, hold 0`
`Number of transitions to forwarding state: 1`
`Link type is point-to-point by default`
`The port type is network by default.`
`BPDU: sent 4657, received 188`
`Port 1025 (Ethernet8/1) of VLAN0002 is designated forwarding`
`Port path cost 20000, Port priority 128, Port Identifier 128.1025`
`Designated root has priority 32770, address 0018.bad7.fc15`
`Designated bridge has priority 32770, address 0018.bad7.fc15`
`Designated port id is 128.1025, designated path cost 0`
`Timers: message age 0, forward delay 0, hold 0`
`Number of transitions to forwarding state: 1`
`Link type is point-to-point by default`
`The port type is network by default.`
`BPDU: sent 4838, received 0`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 77.
	Examples
	• This command displays an STP table for Ethernet 5 interface.
	`switch>show spanning-tree interface ethernet 5`
	`Instance Role State Cost Prio.Nbr Type`
	`---------------- ---------- ---------- ---------- -------- --------------------`
	`MST0 designated forwarding 20000 128.5 P2p`
	`switch>`
	• This command displays a data block for Ethernet interface 5.
	`switch>show spanning-tree interface ethernet 5 detail`
	`Port 5 (Ethernet5) of MST0 is designated forwarding`
	`Port path cost 20000, Port priority 128, Port Identifier 128.5.`
	`Designated root has priority 32768, address 001c.7301.07b9`
	`Designated bridge has priority 32768, address 001c.7304.195b`
	`Designated port id is 128.5, designated path cost 1999 (Ext) 0 (Int)`
	`Timers: message age 1, forward delay 15, hold 20`
	`Number of transitions to forwarding state: 1`
	`Link type is point-to-point by default, Internal`
	`BPDU: sent 1008766, received 0, taggedErr 0, otherErr 0, rateLimiterCount 0`
	`Rate-Limiter: enabled, Window: 10 sec, Max-BPDU: 400`
	`switch>`
	
	Arista User Manual v. 4.14.3F – Rev. 2 (October 2, 2014), at 988.
	
	See also Arista User Manual v. 4.12.3 (7/17/13), at 866; Arista User Manual, v. 4.11.1 (1/11/13), at 684; Arista User Manual v. 4.10.3 (10/22/12), at 598; Arista User Manual v. 4.9.3.2 (5/3/12), at 517; Arista User Manual v. 4.8.2 (11/18/11), at 391; Arista User Manual v. 4.7.3 (7/18/11), at 280.

Cisco

```
switch# show spanning-tree mst

##### MST0    vlans mapped:   1-4094
Bridge        address 0018.bad7.fc15  priority      32768 (32768 sysid 0)
Root          this switch for the CIST
Regional Root this switch
Operational   hello time 2 , forward delay 15, max age 20, txholdcount 6
Configured    hello time 2 , forward delay 15, max age 20, max hops    20

Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Eth8/1           Desg FWD 20000     128.1025 P2p
Eth8/2           Desg FWD 20000     128.1026 P2p
```

This example shows how to display STP information about a specific MST instance:

```
switch)# show spanning-tree mst 0

##### MST0    vlans mapped:   1-4094
Bridge        address 0018.bad7.fc15  priority      32768 (32768 sysid 0)
Root          this switch for the CIST
Regional Root this switch
Operational   hello time 2 , forward delay 15, max age 20, txholdcount 6
Configured    hello time 2 , forward delay 15, max age 20, max hops    20

Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Eth8/1           Desg FWD 20000     128.1025 P2p
Eth8/2           Desg FWD 20000     128.1026 P2p
```

This example shows how to display detailed STP information about the MST protocol:

```
switch)# show spanning-tree mst detail

##### MST0    vlans mapped:   1-4094
Bridge        address 0018.bad7.fc15  priority      32768 (32768 sysid 0)
Root          this switch for the CIST
Regional Root this switch
Operational   hello time 2 , forward delay 15, max age 20, txholdcount 6
Configured    hello time 2 , forward delay 15, max age 20, max hops    20

Eth8/1 of MST0 is designated forwarding
Port info             port id        128.1025  priority    128  cost    20000
Designated root       address 0018.bad7.fc15  priority  32768  cost    0
Design. regional root address 0018.bad7.fc15  priority  32768  cost    0
Designated bridge     address 0018.bad7.fc15  priority  32768  port id 128.1025
Timers: message expires in 0 sec, forward delay 0, forward transitions 1
Bpdus sent 1379, received 3

Eth8/2 of MST0 is designated forwarding
Port info             port id        128.1026  priority    128  cost    20000
Designated root       address 0018.bad7.fc15  priority  32768  cost    0
Design. regional root address 0018.bad7.fc15  priority  32768  cost    0
Designated bridge     address 0018.bad7.fc15  priority  32768  port id 128.1026
Timers: message expires in 0 sec, forward delay 0, forward transitions 1
Bpdus sent 1380, received 2
```

Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 80

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Examples

- This command displays interface data blocks for MST instance 3.

```
switch>show spanning-tree mst 3 detail
##### MST3    vlans mapped:        3
Bridge        address 0011.2233.4402  priority      32771 (32768 sysid 3)
Root          address 0011.2233.4401  priority      32771 (32768 sysid 3)

Ethernet1 of MST3 is root forwarding
Port info               port id         128.1  priority    128  cost       2000
Designated root         address 0011.2233.4401  priority  32768  cost          0
Designated bridge       address 0011.2233.4401  priority  32768  port id   128.1

Ethernet2 of MST3 is alternate discarding
Port info               port id         128.2 priority    128  cost       2000
Designated root         address 0011.2233.4401 priority  32768  cost          0
Designated bridge       address 0011.2233.4401 priority  32768  port id   128.2

Ethernet3 of MST3 is designated forwarding
Port info               port id         128.3 priority    128  cost       2000
Designated root         address 0011.2233.4401 priority  32768  cost       2000
Designated bridge       address 0011.2233.4402 priority  32768  port id   128.3
```

- This command displays interface tables for all MST instances.

```
switch>show spanning-tree mst
##### MST0     vlans mapped:        1,4-4094
Bridge          address 0011.2233.4402  priority       32768 (32768 sysid 0)
Root            address 0011.2233.4401  priority       32768 (32768 sysid 0)
Regional Root   address 0011.2233.4401  priority       32768 (32768 sysid 0)

Interface        Role       State      Cost      Prio.Nbr Type
---------------- ---------- ---------- --------- -------- --------------------
Et1              root       forwarding 2000      128.1    P2p
Et2              alternate  discarding 2000      128.2    P2p
Et3              designated forwarding 2000      128.3    P2p
Et4              designated forwarding 2000      128.4    P2p

##### MST2 vlans mapped: 2
Bridge          address 0011.2233.4402  priority        8194 (8192 sysid 2)
Root            this switch for MST2

Interface        Role       State      Cost      Prio.Nbr Type
---------------- ---------- ---------- --------- -------- --------------------
Et1              designated forwarding 2000      128.1    P2p
Et2              designated forwarding 2000      128.2    P2p
Et3              designated forwarding 2000      128.3    P2p
Et4              designated forwarding 2000      128.4    P2p

##### MST3 vlans mapped: 3
Bridge          address 0011.2233.4402  priority       32771 (32768 sysid 3)
Root            address 0011.2233.4401  priority       32771 (32768 sysid 3)

Interface        Role       State      Cost      Prio.Nbr Type
---------------- ---------- ---------- --------- -------- --------------------
Et1              root       forwarding 2000      128.1    P2p
Et2              alternate  discarding 2000      128.2    P2p
Et3              designated forwarding 2000      128.3    P2p
Et4              designated forwarding 2000      128.4    P2p
```

Cisco	Arista
	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 990. *See also* Arista User Manual v. 4.12.3 (7/17/13), at 867-68; Arista User Manual, v. 4.11.1 (1/11/13), at 685-86; Arista User Manual v. 4.10.3 (10/22/12), at 599-600; Arista User Manual v. 4.9.3.2 (5/3/12), at 518-19; Arista User Manual v. 4.8.2 (11/18/11), at 392-393; Arista User Manual v.

This example shows how to display information about the MST configuration:
`switch)# show spanning-tree mst configuration`
`Name:      [mst-bldg-sj6/3]`
`Revision:  1    Instances Configured: 3`
`Instance   Vlans mapped`
`---------  --------------------------------------------------`
`0          1`
`2000       2-2000`
`4094       2001-4094`
`-----------------------------------------------------------------`
 	
This example shows how to display the MD5 digest included in the current MST configuration:
`switch)# show spanning-tree mst configuration digest`
`Name       [mst-config]`
`Revision   10    Instances configured 25`
`Digest          0x40D5ECA178C657835C83BBCB16723192`
`Pre-std Digest  0x27BF112A75B72781ED928D9EC5BB4251`
 	
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 81.
	Examples
	• This command displays the MST region's VLAN-to-instance map.
	`switch>show spanning-tree mst configuration`
	`Name      []`
	`Revision  0   Instances configured 3`
	`Instance  Vlans mapped`
	`--------  ---------------------------------------------------------------`
	`0         1,4-4094`
	`2         2`
	`3         3`
	`-------------------------------------------------------------------------`
	`switch>`
	• This command displays the MST region's configuration digest.
	`switch>show spanning-tree mst configuration digest`
	`Name      []`
	`Revision  0   Instances configured 1`
	`Digest        0xAC36177F50283CD4B83821D8AB26DE62`
	`switch>`
	
	Arista User Manual v. 4.14.3F – Rev. 2 (October 2, 2014), at 991.
	
	See also Arista User Manual v. 4.12.3 (7/17/13), at 869; Arista User Manual, v. 4.11.1 (1/11/13), at 687; Arista User Manual v. 4.10.3 (10/22/12), at 601; Arista User Manual v. 4.9.3.2 (5/3/12), at 520; Arista User Manual v. 4.8.2 (11/18/11), at 394; Arista User Manual v. 4.7.3 (7/18/11), at 283.

<table>
<tr><th>Cisco</th><th>Arista</th></tr>
<tr>
<td>
Examples This example shows how to display information for the root bridge:
<pre>
switch(config)# show spanning-tree root

MST Instance   Root ID   Cost Time Age Dly Root Port
---------------- ------------------- ------ ----- --- --- ----------------
MST0000   32768 0018.bad7.fc15   0   2   20 15 This bridge is root
</pre>
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 82-83.
</td>
<td>
Examples
• This command displays a table of root bridge information.
<pre>
switch>show spanning-tree root
                         Root ID   Root   Hello Max Fwd
Instance   Priority   MAC addr   Cost   Time   Age Dly Root Port
----------   -------- ------------------ --------- ----- --- --- ------------
MST0   32768   001c.7301.23de   0   2   20   15   Po937
MST101   32869   001c.7301.23de   3998   0   0   0   Po909
MST102   32870   001c.7301.23de   3998   0   0   0   Po911
switch>
</pre>
Arista User Manual v. 4.12.4 (9/16/2013), at 894.
Arista User Manual v. 4.13.6F (4/14/2014), at 958.
Arista User Manual v. 4.13.7M (6/17/2014), at 976.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 994.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 996.
Arista User Manual v. 4.14.6M (1/19/2015), at 992.
Arista User Manual v. 4.15.0F (4/18/2015), at 1000.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 992.
</td>
</tr>
<tr>
<td>
<pre>
switch# show vlan summary

Number of existing VLANs   : 9
 Number of existing user VLANs   : 9
 Number of existing extended VLANs   : 0
</pre>
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 94.
</td>
<td>
Example
• This command displays the number of VLANs on the switch.
<pre>
switch>show vlan summary
Number of existing VLANs   : 18

switch>
</pre>
Arista User Manual v. 4.12.4 (9/16/2013), at 658.
Arista User Manual v. 4.13.6F (4/14/2014), at 766.
Arista User Manual v. 4.13.7M (6/17/2014), at 784.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 791.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 793.
Arista User Manual v. 4.14.6M (1/19/2015), at 789.
Arista User Manual v. 4.15.0F (4/18/2015), at 797.
</td>
</tr>
</table>

<table>
<tr><th>Cisco</th><th>Arista</th></tr>
<tr><td></td><td>Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 789.</td></tr>
<tr><td>**Examples** This example shows how to display information about all private VLANs on the device:
switch(config)# **show vlan private-vlan**
Primary Secondary Type Ports
------- --------- --------------- -----------------------
200 201 isolated Eth2/26, Eth2/27
200 202 community Eth2/26, Eth2/28

Cisco Nexus 7000 Series NX-OS Layer 2 Switching Command Reference (Feb. 2013), at 100.</td><td>**Example**
• This command displays the private VLANs.
switch>**show vlan private-vlan**
Primary Secondary Type Ports
------- --------- ----------- --------------------------------
5 25 isolated
5 26 isolated
7 31 community
7 32 isolated
switch>

Arista User Manual v. 4.12.4 (9/16/2013), at 657.
Arista User Manual v. 4.13.6F (4/14/2014), at 765.
Arista User Manual v. 4.13.7M (6/17/2014), at 783.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 790.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 792.
Arista User Manual v. 4.14.6M (1/19/2015), at 788.
Arista User Manual v. 4.15.0F (4/18/2015), at 796.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 788.</td></tr>
<tr><td>BGP table version is 10, local router ID is 3.3.3.3
Status: s-suppressed, x-deleted, S-stale, d-dampened, h-history, *-valid, >-best
Path type: i-internal, e-external, c-confed, l-local, a-aggregate, r-redist
Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath

Network Next Hop Metric LocPrf Weight Path
* i200.0.1.100/32 201.0.25.1 100 100 6553601 i
*>e 201.0.13.1 0 6553601 i
* i200.0.2.100/32 201.0.25.1 100 100 6553601 i
*>e 201.0.13.1 0 6553601 i
*>l200.0.3.100/32 0.0.0.0 100 32768 i

Cisco Nexus 7000 Series NX-OS Unicast Routing Command Reference (August 2013), at 401.</td><td>switch>**show ip bgp neighbors 10.14.4.4 advertised-routes regexp _64502_**
BGP routing table information for VRF default
Router identifier 172.24.78.191, local AS number 64498
Route status codes: s - suppressed, * - valid, > - active, E - ECMP head, e - ECMP
S - Stale
Origin codes: i - IGP, e - EGP, ? - incomplete
AS Path Attributes: Or-ID - Originator ID, C-LST - Cluster List, LL Nexthop - Link
Local Nexthop

Network Next Hop Metric LocPref Weight Path
* > 10.99.31.0/24 10.88.202.1 333 100 - (64502 64503) 99 i
* > 10.99.41.0/24 10.88.202.1 333 100 - (64502 64503) 99 i
* > 10.99.99.0/24 10.88.202.1 333 100 - (64502 64504) 99 i

Arista User Manual v. 4.13.6F (4/14/2014), at 1587.
Arista User Manual v. 4.13.7M (6/17/2014), at 1605.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 1637.</td></tr>
</table>

Cisco	Arista
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1651. Arista User Manual v. 4.14.6M (1/19/2015), at 1647. Arista User Manual v. 4.15.0F (4/18/2015), at 1655. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1649.

This example shows how to display information about IGMP snooping queriers:
`switch(config)# show ip igmp snooping querier`
`Vlan  IP Address      Version   Port`
`1     172.20.50.11    v3        fa2/1`
`2     172.20.40.20    v2        Router`
`switch(config)#`
 	
Cisco Nexus 7000 Series NX-OS Multicast Routing Command Reference (August 2013), at 50.
	Example
	• This command displays the querier IP address, version, and port servicing each VLAN.
	`switch>show ip igmp snooping querier`
	`Vlan  IP Address      Version  Port`
	`----------------------------------------------------`
	`1     172.17.0.37     v2       Po1`
	`20    172.17.20.1     v2       Po1`
	`26    172.17.26.1     v2       Cpu`
	`2028  172.17.255.29   v2       Po1`
	`switch>`
	
	Arista User Manual v. 4.12.4 (9/16/2013), at 1560.
	Arista User Manual v. 4.13.6F (4/14/2014), at 1790.
	Arista User Manual v. 4.13.7M (6/17/2014), at 1755.
	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 1860.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1874.
	Arista User Manual v. 4.14.6M (1/19/2015), at 1870.
	Arista User Manual v. 4.15.0F (4/18/2015), at 1878.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1872.

Examples
This example shows how to use the **show port-security** command to view the status of the port security feature on a device:
`switch# show port-security`
`Total Secured Mac Addresses in System (excluding one mac per port)     : 0`
`Max Addresses limit in System (excluding one mac per port) : 8192`
`----------------------------------------------------------------------------`
`Secure Port  MaxSecureAddr  CurrentAddr  SecurityViolation  Security Action`
`                (Count)       (Count)         (Count)`
`----------------------------------------------------------------------------`
`Ethernet1/4        5             1            0                   Shutdown`
`============================================================================`
`switch#`
 	
Cisco Nexus 7000 Series NX-OS Security Command Reference (August 2013), at SEC-661.
	`switch(config)#clear mac address-table dynamic interface ethernet 7`
	`switch(config)#show port-security`
	`Secure Port   MaxSecureAddr  CurrentAddr  SecurityViolation  Security Action`
	`                 (Count)        (Count)         (Count)`
	`------------------------------------------------------------------------------`
	`    Et7            2              2            0                 Shutdown`
	`------------------------------------------------------------------------------`
	`Total Addresses in System: 1`
	`switch(config)#show port-security address`
	`          Secure Mac Address Table`
	`----------------------------------------------------------------`
	`Vlan    Mac Address       Type                 Ports   Remaining Age`
	`                                                            (mins)`
	`----    -----------       ----                 -----   -------------`
	`  10    0034.24c2.8f11    SecureConfigured     Et7     N/A`
	`  10    4464.842d.17ce    SecureConfigured     Et7     N/A`
	`----------------------------------------------------------------`
	`Total Mac Addresses for this criterion: 2`
	`switch(config)#`

Cisco	Arista
	Arista User Manual v. 4.12.4 (9/16/2013), at 520. Arista User Manual v. 4.13.6F (4/14/2014), at 624. Arista User Manual v. 4.13.7M (6/17/2014), at 624. Arista User Manual v. 4.14.3F – Rev. 2 (October 2, 2014), at 632. Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 634. Arista User Manual v. 4.14.6M (1/19/2015), at 630. Arista User Manual v. 4.15.0F (4/18/2015), at 638. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 630.

Examples This example shows how to use the **show port-security address** command to view information about all MAC addresses secured by port security:
`switch# show port-security address`
`Total Secured Mac Addresses in System (excluding one mac per port) : 0`
`Max Addresses limit in System (excluding one mac per port) : 8192`
`Secure Mac Address Table`
`Vlan Mac Address Type Ports Remaining Age (mins)`
`1 0054.AAB3.770F STATIC port-channel1 0`
`1 00EE.378A.ABCE STATIC Ethernet1/4 0`
`switch#`
This example shows how to use the **show port-security address** command to view the MAC addresses secured by the port security feature on the Ethernet 1/4 interface:
`switch# show port-security address interface ethernet 1/4`
`Secure Mac Address Table`
`Vlan Mac Address Type Ports Remaining Age (mins)`
`1 00EE.378A.ABCE STATIC Ethernet1/4 0`
`switch#`
 	
Cisco Nexus 7000 Series NX-OS Security Command Reference (August 2013), at SEC-664.
	`switch>show port-security address`
	`Secure Mac Address Table`
	`Vlan Mac Address Type Ports Remaining Age (mins)`
	`10 164f.29ae.4e14 SecureConfigured Et7 N/A`
	`10 164f.29ae.4f11 SecureConfigured Et7 N/A`
	`10 164f.320a.3a11 SecureConfigured Et7 N/A`
	`Total Mac Addresses for this criterion: 3`
	`switch>`
	
	Arista User Manual v. 4.12.4 (9/16/2013), at 581.
	Arista User Manual v. 4.13.6F (4/14/2014), at 686.
	Arista User Manual v. 4.13.7M (6/17/2014), at 690.
	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 698.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 700.
	Arista User Manual v. 4.14.6M (1/19/2015), at 696.
	Arista User Manual v. 4.15.0F (4/18/2015), at 704.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 696.

Cisco	Arista

Examples This example shows how to display the EEE status on an interface:
`switch# show interface ethernet2/6`
`Ethernet2/6 is down (Link not connected)`
`admin state is up, Dedicated Interface`
`Hardware: 10000 Ethernet, address: 0022.5579.de41 (bia 001b.54c1.af5d)`
`MTU 1500 bytes, BW 10000000 Kbit, DLY 10 usec`
`reliability 255/255, txload 1/255, rxload 1/255`
`Encapsulation ARPA, medium is broadcast`
`auto-duplex, auto-speed, media type is 10G`
`Beacon is turned off`
`Auto-Negotiation is turned off`
`Input flow-control is off, output flow-control is off`
`Auto-mdix is turned off`
`Rate mode is shared`
`Switchport monitor is off`
`EtherType is 0x8100`
`EEE (efficient-ethernet) : n/a`
`Last link flapped never`
`Last clearing of "show interface" counters never`
`0 interface resets`
`30 seconds input rate 0 bits/sec, 0 packets/sec`
`30 seconds output rate 0 bits/sec, 0 packets/sec`
`Load-Interval #2: 5 minute (300 seconds)`
 	
Cisco Nexus 7000 Series NX-OS System Management Command Reference (August 2013), at 514.
	`switch(config)#interface ethernet 7`
	`switch(config-if-Et7)#mac-address 001c.2804.17e1`
	`switch(config-if-Et7)#show interface ethernet 7`
	`Ethernet3 is up, line protocol is up (connected)`
	`Hardware is Ethernet, address is 001c.2804.17e1 (bia 001c.7312.02e2)`
	`Description: b.e45`
	`MTU 9212 bytes, BW 10000000 Kbit`
	`Full-duplex, 10Gb/s, auto negotiation: off`
	`Last clearing of "show interface" counters never`
	`5 seconds input rate 7.84 kbps (0.0% with framing), 10 packets/sec`
	`5 seconds output rate 270 kbps (0.0% with framing), 24 packets/sec`
	`1363799 packets input, 222736140 bytes`
	`Received 0 broadcasts, 290904 multicast`
	`0 runts, 0 giants`
	`0 input errors, 0 CRC, 0 alignment, 0 symbol`
	`0 PAUSE input`
	`2264927 packets output, 2348747214 bytes`
	`Sent 0 broadcasts, 28573 multicast`
	`0 output errors, 0 collisions`
	`0 late collision, 0 deferred`
	`0 PAUSE output`
	`switch(config-if-Et7)#`
	
	Arista User Manual v. 4.12.4 (9/16/2013), at 390.
	Arista User Manual v. 4.13.6F (4/14/2014), at 429.
	Arista User Manual v. 4.13.7M (6/17/2014), at 429.
	Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 437.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 439.
	Arista User Manual v. 4.14.6M (1/19/2015), at 435.
	Arista User Manual v. 4.15.0F (4/18/2015), at 443.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 435.

<table>
<tr><th>Cisco</th><th>Arista</th></tr>
<tr>
<td>
Examples
This example shows how to display the PTP clock information:
switch# **show ptp clock**
PTP Device Type: Boundary clock
Clock Identity : 0:18:ba:ff:ff:d8: e:17
Clock Domain: 0
Number of PTP ports: 2
Priority1 : 255
Priority2 : 255
Clock Quality:
Class : 248
Accuracy : 254
Offset (log variance) : 65535
Offset From Master : 0
Mean Path Delay : 0
Steps removed : 1
Local clock time:Sun Jan 15 20:57:29 2011

Cisco Nexus 7000 Series NX-OS System Management Command Reference (August 2013), at 601.
</td>
<td>
switch#**show ptp clock**
PTP Mode: Boundary Clock
Clock Identity: 0x00:1c:73:ff:ff:1e:83:24
Clock Domain: 1
Number of PTP ports: 24
Priority1: 128
Priority2: 128
Clock Quality:
Class: 248
Accuracy: 0x30
OffsetScaledLogVariance: 0xffff
Offset From Master: 0
Mean Path Delay: 0
Steps Removed: 0
switch#

Arista User Manual v. 4.12.4 (9/16/2013), at 233.
Arista User Manual v. 4.13.6F (4/14/2014), at 267.
Arista User Manual v. 4.13.7M (6/17/2014), at 267.
Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 275.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 277.
Arista User Manual v. 4.14.6M (1/19/2015), at 273.
Arista User Manual v. 4.15.0F (4/18/2015), at 257.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 257.
</td>
</tr>
</table>

Cisco	Arista
Examples This example shows how to display information about the parent and grand m switch# **show ptp parent** Parent Clock: Parent Clock Identity: 0:18:ba:ff:ff:d8: e:16 Parent Port Number: 1546 Observed Parent Offset (log variance): N/A Observed Parent Clock Phase Change Rate: N/A Grandmaster Clock: Grandmaster Clock Identity: 0:18:ba:ff:ff:d8: e:16 Grandmaster Clock Quality: Class: 248 Accuracy: 254 Offset (log variance): 65535 Priority1: 255 Priority2: 255 Cisco Nexus 7000 Series NX-OS System Management Command Reference (August 2013), at 607.	Precision Time Protocol (PTP) clock. switch# **show ptp parent** Parent Clock: Parent Clock Identity: 0x00:1c:73:ff:ff:00:72:40 Parent Port Number: 0 Parent IP Address: N/A Observed Parent Offset (log variance): N/A Observed Parent Clock Phase Change Rate: N/A Grandmaster Clock: Grandmaster Clock Identity: 0x00:1c:73:ff:ff:00:72:40 Grandmaster Clock Quality: Class: 248 Accuracy: 0x30 OffsetScaledLogVariance: 0xffff Priority1: 128 Priority2: 128 switch# Arista User Manual v. 4.12.4 (9/16/2013), at 233-234. Arista User Manual v. 4.13.6F (4/14/2014), at 267. Arista User Manual v. 4.13.7M (6/17/2014), at 267. Arista User Manual v. 4.14.3F – Rev. 2 (10/2/2014), at 275. Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 277. Arista User Manual v. 4.14.6M (1/19/2015), at 273. Arista User Manual v. 4.15.0F (4/18/2015), at 257. Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 257.
Examples This example shows how to display the PTP clock properties: switch# **show ptp time-property** PTP CLOCK TIME PROPERTY: Current UTC Offset valid: 0 Current UTC Offset: 33 Leap59: 0 Leap61: 0 Time Traceable: 0 Frequency Traceable: 0 PTP Timescale: 0 Time Source: 0xA0(internal oscillator) Cisco Nexus 7000 Series NX-OS System Management Command	• The show ptp time-property command displays the Precision Time Protocol (PTP) clock properties. switch# **show ptp time-property** Current UTC offset valid: False Current UTC offset: 0 Leap 59: False Leap 61: False Time Traceable: False Frequency Traceable: False PTP Timescale: False Time Source: 0x0 switch# Arista User Manual v. 4.12.4 (9/16/2013), at 234. Arista User Manual v. 4.13.6F (4/14/2014), at 267-268.

<table>
<tr><th>Cisco</th><th>Arista</th></tr>
<tr><td>Reference (August 2013), at 611.</td><td>Arista User Manual v. 4.13.7M (6/17/2014), at 267-268.
Arista User Manual v. 4.14.3F – Rev. 2 (October 2, 2014), at 275-76.
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 277.
Arista User Manual v. 4.14.6M (1/19/2015), at 273.
Arista User Manual v. 4.15.0F (4/18/2015), at 257.
Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 257.</td></tr>
<tr><td>

Examples

This example shows how to display the SNMP information:

```
switch(config)# show snmp
sys contact:
sys location: anyplace, Anywhere

0 SNMP packets input
        0 Bad SNMP versions
        0 Unknown community name
        0 Illegal operation for community name supplied
        0 Encoding errors
        0 Number of requested variables
        0 Number of altered variables
        0 Get-request PDUs
        0 Get-next PDUs
        0 Set-request PDUs
0 SNMP packets output
        0 Too big errors
        0 No such name errors
        0 Bad values errors
        0 General errors
```

Cisco Nexus 7000 Series NX-OS System Management Command Reference (August 2013), at 634.</td><td>

```
     switch(config)#snmp-server chassis-id xyz-1234
     switch(config)#show snmp
         Chassis: xyz-1234
```

<---chassis ID

```
8 SNMP packets input
    0 Bad SNMP version errors
    0 Unknown community name
    0 Illegal operation for community name supplied
    0 Encoding errors
    8 Number of requested variables
    0 Number of altered variables
    4 Get-request PDUs
    4 Get-next PDUs
    0 Set-request PDUs
21 SNMP packets output
    0 Too big errors
    0 No such name errors
    0 Bad value errors
    0 General errors
    8 Response PDUs
    0 Trap PDUs
SNMP logging: enabled
    Logging to taccon.162
SNMP agent enabled
switch(config)#
```

Arista User Manual v. 4.12.4 (9/16/2013), at 1705-1706.
Arista User Manual v. 4.13.6F (4/14/2014), at 1895-1896.
Arista User Manual v. 4.13.7M (6/17/2014), at 1923-1924.
Arista User Manual v. 4.14.3F (Rev. 2) (10/2/2014), at 1967-68
Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1981-1982.</td></tr>
</table>

Cisco	Arista
	Arista User Manual v. 4.14.6M (1/19/2015), at 1977-1978. Arista User Manual v. 4.15.0F (4/18/2015), at 1985-1986 Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1979-1980.

Examples This example shows how to display the SNMP engine ID:
`switch(config)# show snmp engineID`
`Local SNMP engineID: [Hex] 8000000903000530OA0B0C`
`[Dec] 128:000:000:009:003:000:005:048:010:011:012`
 	
Cisco Nexus 7000 Series NX-OS System Management Command Reference, Release 5.x (April 2010), at 533.
	• This command displays the ID of the local SNMP engine.
	`switch>show snmp engineid`
	`Local SNMP EngineID: f5717f001c730436d700`
	`switch>`
	
	Arista User Manual v. 4.11.1 – Rev 2 (1/22/2013), at 1363.
	Arista User Manual v. 4.11.2.1 (3/1/2013), at 1443.
	Arista User Manual v. 4.12.4 (9/16/2013), at 1716.
	Arista User Manual v. 4.13.6F (4/14/2014), at 1906.
	Arista User Manual v. 4.13.7M (6/17/2014), at 1934.
	Arista User Manual v. 4.14.3F – Rev. 2 (October 2, 2014), at 1978.
	Arista User Manual v. 4.14.5F – Rev. 2 (12/22/2014), at 1991.
	Arista User Manual v. 4.14.6M (1/19/2015), at 1987.
	Arista User Manual v. 4.15.0F (4/18/2015), at 1995.
	Arista User Manual v. 4.15.0F – Rev. 2 (4/27/2015), at 1989.

Switch(config)#help Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options. Two styles of help are provided: Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument Partial help is provided when an abbreviated argument is entered	localhost(config)#help Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options. Two styles of help are provided: 1. Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument. Partial help is provided when an abbreviated argument is entered and

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and you want to know what arguments match the input (e.g. 'show	you want to know what arguments match the input (e.g. 'show pr?'.)
Switch#show snmp 0 SNMP packets input 0 Bad SNMP version errors 0 Unknown community name 0 Illegal operation for community name supplied 0 Encoding errors 0 Number of requested variables 0 Number of altered variables 0 Get-request PDUs 0 Get-next PDUs 0 Set-request PDUs 0 Input queue packet drops (Maximum queue size 1000) 0 SNMP packets output 0 Too big errors (Maximum packet size 1500) 0 No such name errors 0 Bad values errors 0 General errors 0 Response PDUs 0 Trap PDUs Chassis: CAT1552S66E SNMP global trap: disabled SNMP agent enabled	localhost#show snmp Chassis: HSH16130550 0 SNMP packets input 0 Bad SNMP version errors 0 Unknown community name 0 Illegal operation for community name supplied 0 Encoding errors 0 Number of requested variables 0 Number of altered variables 0 Get-request PDUs 0 Get-next PDUs 0 Set-request PDUs 0 SNMP packets output 0 Too big errors 0 No such name errors 0 Bad value errors 0 General errors 0 Response PDUs 0 Trap PDUs Access Control 0 Users 1 Groups 0 Views SNMP logging: disabled SNMP agent enabled in VRFs: default 1 warnings ! Group "tech-sup" of user "tech-1" is not configured
Switch#show ip route Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area	localhost#show ip route Codes: C - connected, S - static, K - kernel, O - OSPF, IA - OSPF inter area, E1 - OSPF external type 1,

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N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2 i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2 ia - IS-IS inter area, * - candidate default, U - per-user static route o - ODR, P - periodic downloaded static route Gateway of last resort is not set	E2 - OSPF external type 2, N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2, B I - iBGP, B E - eBGP, R - RIP, I - ISIS, A B - BGP Aggregate, A O - OSPF Summary, NG - Nexthop Group Static Route Gateway of last resort is not set
Switch#show ip route Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2 i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2 ia - IS-IS inter area, * - candidate default, U - per-user static route o - ODR, P - periodic downloaded static route Gateway of last resort is not set	localhost#show ip route Codes: C - connected, S - static, K - kernel, O - OSPF, IA - OSPF inter area, E1 - OSPF external type 1, E2 - OSPF external type 2, N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2, B I - iBGP, B E - eBGP, R - RIP, I - ISIS, A B - BGP Aggregate, A O - OSPF Summary, NG - Nexthop Group Static Route Gateway of last resort is not set
Switch#show ip igmp snooping Global IGMP Snooping configuration: --- IGMP snooping : Enabled IGMPv3 snooping : Enabled Report suppression : Enabled TCN solicit query : Disabled TCN flood query count : 2 Last Member Query Interval : 1000 Vlan 1: -------- IGMP snooping : Enabled CAPWAP enabled : Disabled IGMPv2 immediate leave : Disabled	localhost#show ip igmp snooping Global IGMP Snooping configuration: --- IGMP snooping : Enabled Robustness variable : 2 Report flooding : Disabled Vlan 1 : ---------- IGMP snooping : Enabled IGMPv2 immediate leave : Enabled Multicast router learning mode : pim-dvmrp IGMP max group limit : No limit set Recent attempt to exceed limit : No

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Explicit host tracking : Enabled Multicast router learning mode : pim-dvmrp CGMP interoperability mode : IGMP_ONLY Last Member Query Interval : 1000	Report flooding : Disabled IGMP snooping pruning active : False Flooding traffic to VLAN : True
Switch#show interfaces FastEthernet 1 FastEthernet1 is down, line protocol is down Hardware is Fast Ethernet for out of band management, address is c464.1342.efbf (bia c464.1342.efbf) Internet address is 10.1.1.35/24 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec, reliability 255/255, txload 1/255, rxload 1/255 Encapsulation ARPA, loopback not set Keepalive set (10 sec) Unknown duplex, Unknown Speed, 100BaseTX/FX ARP type: ARPA, ARP Timeout 04:00:00 Last input never, output never, output hang never Last clearing of "show interface" counters never Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue: 0/40 (size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0 packets/sec 0 packets input, 0 bytes Received 0 broadcasts (0 IP multicasts) 0 runts, 0 giants, 0 throttles 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored 0 watchdog 0 input packets with dribble condition detected 0 packets output, 0 bytes, 0 underruns 0 output errors, 0 collisions, 2 interface resets 0 babbles, 0 late collision, 0 deferred	localhost#show interface ethernet 1 Ethernet1 is down, line protocol is down (notconnect) Hardware is Ethernet, address is 444c.a88f.f7fa (bia 444c.a88f.f7fa) Ethernet MTU 9214 bytes Auto-duplex, Auto-speed, auto negotiation: on, uni-link: unknown Down 35 seconds 2 link status changes since last clear Last clearing of "show interface" counters never 5 minutes input rate 0 bps (- with framing overhead), 0 packets/sec 5 minutes output rate 0 bps (- with framing overhead), 0 packets/sec 0 packets input, 0 bytes Received 0 broadcasts, 0 multicast 0 runts, 0 giants 0 input errors, 0 CRC, 0 alignment, 0 symbol, 0 input discards 0 PAUSE input 0 packets output, 0 bytes Sent 0 broadcasts, 0 multicast 0 output errors, 0 collisions 0 late collision, 0 deferred, 0 output discards 0 PAUSE output

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0 lost carrier, 0 no carrier 0 output buffer failures, 0 output buffers swapped out	